

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re the Application of:

MARWAH

Serial No.: 10/660,938

Filed: September 12, 2003

Atty. File No.: 4366-121

For: "METHOD AND APPARATUS USING
LIGHTWEIGHT RRQ FOR EFFICIENT
RECOVERY OF A CALL SIGNALING
CHANNEL IN A GATEKEEPER-ROUTED
CALL SIGNALING"

) Group Art Unit: 2154
)

) Examiner: TURNER, ASHLEY D
)

) Confirmation No.: 7028
)

CERTIFICATE OF TRANSMISSION

I HEREBY CERTIFY THAT THIS CORRESPONDENCE
IS BEING TRANSMITTED VIA THE OFFICE
ELECTRONIC FILING SYSTEM IN ACCORDANCE
WITH 37 CFR §1.6(a)(4) ON

August 28, 2008
SHERIDAN ROSS P.C.

BY: Jessie M. Frankel

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313

APPELLANT'S BRIEF ON APPEAL (37 CFR § 41.31)

Dear Sir:

This is an appeal under 37 CFR § 41.31 to the Board of Patent Appeals and Interferences of the United States Patent and Trademark Office from the final rejection of Claims 1-23 of the above-identified patent application. These claims were indicated as finally rejected in an Office Action dated June 25, 2008, and the Notice of Panel Decision from Pre-Appeal Brief Review dated July 29, 2008, indicated that these Claims remained rejected. Payment in the amount of \$510 for the fee required under 37 CFR § 41.20(b)(2) is being submitted herewith via EFS-Web. Although Appellant believes this fee amount is correct and that no other fees are required to be paid, please charge any deficiency or credit any overpayment to Deposit Account No. 19-1970.

The structure of the Brief is as follows in accordance with 37 CFR §41.37(c):

- I. Real Party in Interest
- II. Related Appeals and Interferences
- III. Status of Claims
- IV. Status of Amendments

- V. Summary of Claimed Subject Matter
- VI. Grounds of Rejection to be Reviewed on Appeal
- VII. Argument
- VIII. Claims Appendix
- IX. Evidence Appendix- None
- X. Related Proceedings Appendix- None

I. REAL PARTY IN INTEREST

Avaya Technology Corp. is the owner of the patent application and the real party in interest.

II. RELATED APPEALS AND INTERFERENCES

There are no other prior or pending appeals, interferences or judicial proceedings related to this patent application.

III. STATUS OF CLAIMS

The status of the claims is as follows:

- 1. Claims canceled: None.
- 2. Claims withdrawn from consideration but not cancelled: None.
- 3. Claims pending: 1-15, 17, 18 and 20-23.
- 4. Claims allowed: None.
- 5. Claims rejected: 1-23.
- 6. Claims objected to: None.
- 7. Claims appealed: 1-15, 17, 18 and 20-23.

IV. STATUS OF AMENDMENTS

An Amendment and Response that was filed on September 27, 2007 has been entered. A Notice of Panel Decision from Pre-Appeal Brief Review was mailed on July 29, 2008, indicating that there is at least one actual issue for appeal, and requiring the filing of an Appeal Brief within two months of the filing date of the Notice of Appeal. In accordance with 37 C.F.R. §41.37(c)(2), this brief does not include any new or non-admitted amendment.

V. SUMMARY OF CLAIMED SUBJECT MATTER (37 CFR §41.37(c)(1)(v))

The claimed invention is generally directed to efficiently recovering realtime data communication signaling channels established between an endpoint and a gatekeeper over an Internet protocol network. More particularly, embodiments of the claimed invention are directed to providing a communication signaling channel between a communication endpoint and a second gatekeeper after the loss of a communication signaling channel between the communication endpoint and a first gatekeeper. The claimed invention further provides that the second or alternate call signaling channel is established by sending a keep alive message or a lightweight registration request message to the second, alternate gatekeeper in response to or after the loss of a call signaling channel with the first gatekeeper.

The invention generally relates to a realtime communication arrangement 100 involving first 104 and second 108 communication endpoints interconnected by a communication network such as an IP protocol communication network 112. (Specification, p. 4, ll. 15-19.) Realtime communications between the endpoints 104, 108 across the IP communication network 112 may utilize the H.323 protocol. (Specification, p. 5, ll. 7-9.) More particularly, the communication arrangement 100 may include a gatekeeper zone 200 that comprises one or more communication endpoints 104 and two or more gatekeepers 204. (Specification, p. 5, ll. 12-18.)

Each gatekeeper 204 provides various services to each communication endpoint 104 registered with that gatekeeper 204. (Specification, p. 6, ll. 9-10.) Examples of services provided by gatekeepers 204 include address translation, network access control, bandwidth management, accounting functions, and communication features, such as conferencing and call waiting functions. (Specification, p. 6, ll. 9-16.) In general, the call signaling channel must be established between the communication endpoint 104 and a gatekeeper 204 for the duration of a realtime communication between endpoints. (Specification, p. 6, ll. 16-18.)

The communication endpoints 104 generally comprise devices that provide realtime audio, video and/or data communications to and/or from an Internet protocol network 112. (Specification, p. 6, ll. 19-21.) Examples of communication endpoints include telephones or video telephones, or devices that provide interconnections between the Internet protocol communication network 112 and another network, such as a public switched telephone network, and therefore function as a gateway. (Specification, p. 6, ln. 22 to p. 7, ln. 3.) The data comprising the realtime communication is sent to or from the communication endpoint

104 over a bearer channel that is established separately from the call signaling channel. (Specification, p. 7, ll. 3-6.)

In operation, an endpoint 104 sends a gatekeeper request (GRQ) message to a gatekeeper 204. (Specification, p. 7, ll. 11-13.) In response to the GRQ message, the gatekeeper 204 may reply with a gatekeeper confirm (GCF) message and a list of alternate gatekeeper addresses. (Specification, p. 7, ll. 21-23.) If the gatekeeper successfully processes the RRQ message, the gatekeeper 204 replies with a registration confirm (RCF) message that includes a call signaling address for the gatekeeper 204, a list of alternate call signaling addresses for alternate gatekeepers 204 and a time to live value specifying the time interval within which the endpoint 104 must review its registration by sending a lightweight RRQ message. (Specification, p. 8, ll. 12-16.) When a call signaling channel is required, the endpoint 104 establishes a transmission control protocol (TCP) connection to the call signaling address received as part of the RCF message.

If a call signaling channel between the communication endpoint 104 and the gatekeeper 204 is lost, the communication endpoint 104 selects a next or alternate gatekeeper 204 from the alternate call signaling list. (Specification, p. 9, ll. 14-20.) The communication endpoint 104 then sends a lightweight RRQ message, which is also known as a keep alive message, to the next or alternate gatekeeper 204. (Specification, p. 9, ll. 20-21.) This lightweight RRQ message is sent to a next gatekeeper because the original call signaling channel was lost, not because a lightweight RRQ message for purposes of maintaining that first call signaling channel was otherwise due. (Specification, p. 9, ll. 21-23.) That is, the lightweight RRQ message sent in connection with establishing an alternate call signaling channel is not sent as a keep alive signal per se. (Specification, p. 9, ln. 23 to p. 10, ln. 1.) Alternatively, in response to determining that the call signaling channel has been lost, a lightweight RRQ message may be sent to n gatekeepers simultaneously. (Specification, p. 10, ln. 22 to p. 11, ln. 5.) If an RCF message is received from a gatekeeper 204, one of the responding gatekeepers 204 (or the responding gatekeeper 204) is selected and the communication endpoint 104 attempts to establish a call signaling link with the selected gatekeeper 204. (Specification, p. 11, ll. 9-13.)

The alternate gatekeeper 204 should respond to the lightweight RRQ message with a registration confirmation message. (Specification, p. 10, ll. 1-8.) If an RCF response from the alternate gatekeeper 204 is received, it is very likely that the communication endpoint 104 will be able to establish a call signaling channel with the selected alternate gatekeeper 204,

and further indicates that the communication endpoint 104 is still registered with the selected alternate gatekeeper 204. (Specification, p. 10, ll. 9-12.) In response to an RCF message received from the alternate gatekeeper 204, the communication endpoint 104 proceeds to reestablish a call signaling link with the selected gatekeeper 204. (Specification, p. 10, ll. 13-15.)

Independent Claim 1 is generally directed to a method for reestablishing an IP protocol call signaling channel. The method includes:

establishing a first call signaling channel between a first communication endpoint 104 and a first gatekeeper 204a, wherein said first call signaling channel provides a first set of call signaling features with respect to a first bearer channel (Specification, p. 6, ll. 3-18; p. 8, ln. 21 to p. 9, ln. 8);

in response to losing said established first call signaling channel, sending a keep alive message to a second gatekeeper 204b (Specification, p. 9, ln. 16 to p. 10, ln. 1; p. 10, ln. 22 to p. 11, ln. 5); and

in response to receiving a registration confirmation message from said second gatekeeper 204b in reply to said keep alive message, establishing a second call signaling channel with said second gatekeeper 204b, wherein said second call signaling channel provides said first set of call signaling features with respect to said first bearer channel and effectively reestablishes said first call signaling channel (Specification, p. 10, ll. 1-3; p. 10, ll. 9-17; p. 11, ll. 5-16).

Independent Claim 8 is generally directed to a communication system. The system includes:

a first communication endpoint 104a, operable to at least one of receive data from and provide data to an Internet protocol network 112 (Specification, p. 4, ln. 16 to p. 5, ln. 11);

a first gatekeeper 204a, operable to control aspects of operation of a communication endpoint 104 in communication with said first gatekeeper 204a (Specification, p. 5, ln. 12 to p. 6, ln. 18);

a first communication link between said first communication endpoint 104a and said first gatekeeper 204a, wherein said first communication link provides a first call signaling channel in support of a first realtime communication (Specification, p. 6, ll. 9-18; p. 8, ln. 22 to p. 9, ln. 8);

a second gatekeeper 204b, operable to control aspects of operation of a communication endpoint 104 in communication with said second gatekeeper 204b (Specification, p. 5, ln. 12 to p. 6, ln. 18; p. 9, ln. 14 to p. 10, ln. 1; p. 10, ll. 13-17; p. 11, ll. 9-16); and

a second communication link between said first communication endpoint 104a and said second communication gatekeeper 204b, wherein said second communication link is established after said first communication link is lost and after an exchange of a lightweight RRQ message and an RCF message between said first communication endpoint 104a and said second communication gatekeeper 204b, wherein said second communication link provides a second call signaling channel that replaces said first call signaling channel, wherein said first realtime communication formerly supported by said first call signaling channel is supported by said second call signaling channel after said first communication link is lost (Specification, p. 6, ll. 9-18; p. 9, ll. 8-9; p. 9, ln. 14 to p. 11, ln. 17).

Independent Claim 15 is generally directed to a computer readable medium encoded with a computer program for performing a method. The method includes:

registering an endpoint 104 with a first gateway 204a, wherein a first signaling link that supports a first bearer channel comprising a realtime communication is established between said endpoint 104 and said first gateway 204a (Specification, p. 7, ln. 9 to p. 8, ln. 17);

in response to a loss of said first signaling link, sending a lightweight registration request (RRQ) message to a second gateway 204b (Specification, p. 9, ll. 8-9; p. 9, ln. 14 to p. 10, ln. 1); and

in response to receiving a registration confirmation message from said second gateway 204b, establishing a second signaling link between said endpoint and said second gateway 204b, wherein said second signaling link supports said first bearer channel comprising a realtime communication (Specification, p. 10, ll. 9-15; p. 11, ll. 5-16).

Independent Claim 21 is generally directed to a communication system endpoint. The communication system endpoint includes:

Means for communicating with a first means for controlling 204a aspects of an exchange of data in realtime between said communication system endpoint 104a and a second communication system endpoint 104b. The means for communicating are provided by the

communication system endpoint 104 (Specification, p. 6, ll. 1-8). The first means for controlling aspects of an exchange of data are provided by a gatekeeper 204 (Specification, p. 6, ll. 9-18).

Means for generating a lightweight RRQ message in response to a loss of a communication link between said means for communicating and said means for controlling aspects of an exchange of data between said communication system endpoint and a second communication system endpoint. The means for generating a lightweight RRQ message in response to a loss of a communication link are provided by the communication endpoint 104 (Specification, p. 9, ln. 16 to p. 10, ln. 1).

Means for interconnecting said at least a first communication system endpoint means and said first means for controlling aspects of an exchange of data between said communication system endpoint, wherein a first call signaling channel in support of a first realtime communication is established. The means for interconnecting as provided by the communication network 112 (Specification, p. 6, ll. 1-6).

Claims 22 and 23 depend from Claim 21 and are in means plus function format. Therefore, specific citations to the locations in the specification where support for the features of Claims 22 and 23 can be found are provided:

Dependent Claim 22 recites that the communication system endpoint further includes:

Means for storing a list of alternate means for controlling aspects of an exchange of data between said communication system endpoint and a second communication system endpoint, wherein said means for generating a lightweight RRQ message addresses said lightweight RRQ message to a second of said alternate means for controlling, wherein a second call signaling channel is established. The means for storing a list of alternate means for controlling is provided by the communication endpoint 104 (Specification, p. 7, ll. 1-3).

Dependent Claim 23 recites that the communication system of Claim 21 further includes:

Means for storing a list of alternate means for controlling aspects of an exchange of data between said communication system endpoint and a second communication system endpoint, wherein said means for generating a lightweight RRQ message addresses a lightweight RRQ message to a plurality of said alternate means for controlling. The means

for storing a list of alternate means for controlling are provided by the communication endpoint 104 (Specification, p. 7, ll. 21-23). The alternate means for controlling are provided by a gatekeeper 204 other than the gatekeeper 204 providing the first means for controlling (Specification, p. 9, ll. 18-20).

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL (37 CFR §41.37(c)(1)(vi))

A. The Rejections Under 35 U.S.C. §102

1. THE REJECTIONS UNDER 35 U.S.C. §102 OF CLAIMS 1-10 AND 12-14 AS BEING ANTICIPATED BY U.S. PATENT NO. 6,785,223 TO KORPI
2. THE REJECTIONS UNDER 35 U.S.C. §102 OF CLAIMS 21-23 AS BEING ANTICIPATED BY U.S. PATENT NO. 6,771,623 TO TON

B. The Rejections Under 35 U.S.C. §103

1. THE REJECTIONS UNDER 35 U.S.C. §103 OF CLAIMS 15, 17, 18 AND 20 AS BEING OBVIOUS OVER U.S. PATENT NO. 6,785,223 TO KORPI IN VIEW OF U.S. PATENT NO. 6,771,623 TO TON
2. THE REJECTIONS UNDER 35 U.S.C. §103 OF CLAIM 11 OVER U.S. PATENT NO. 6,785,223 TO KORPI IN VIEW OF U.S. PATENT NO. 6,904,277 TO TSUTSUMI

VII. ARGUMENT

A. The Rejections Under 35 U.S.C. §102

Pending Claims 1-10 and 12-14 have been finally rejected as being anticipated by U.S. Patent No. 6,785,223 to Korpi et al. (“Korpi”), and Claims 21-23 have been finally rejected as being anticipated by U.S. Patent No. 6,771,623 to Ton (“Ton”). The relevant portions of 35 U.S.C. §102 provide that “a person shall be entitled to a patent unless- . . . (e) the invention

was described in (1) an application for patent, published under section 122(b) by another filed in the United States before the invention by the application for patent” “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference.” (MPEP §2131 (quoting *Verdegaal bros. vs. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987))). As explained below, because each and every element of the claims appealed cannot be found in the Korpi or Ton references, the Examiner’s rejections under 35 U.S.C. §102 are improper and should be reversed.

1. THE REJECTIONS UNDER 35 U.S.C. §102 OF CLAIMS 1-10 AND 12-14 AS ANTICIPATED BY KORPI

a) The Claimed Invention

As discussed in detail above, the claimed invention is generally directed to reestablishing a call signaling channel using an alternate gatekeeper in response to the loss of a call signaling channel with a first gatekeeper. More particularly, in response to losing an established first call signaling channel, a keep alive message is sent to a second, alternate gatekeeper. In response to receiving a registration confirmation message from the second gatekeeper, the second or alternate call signaling channel is established with the second gatekeeper. Call signaling features are then provided by the second call signaling channel. The second call signaling channel thus replaces the first call signaling channel.

b) The Korpi Reference

The Korpi reference is generally directed to automatically re-establishing signaling that was interrupted due to a gatekeeper failure in an H.323 network. In particular, Korpi discusses the establishment of a supervisory link between primary and secondary gatekeepers. (Korpi, col. 2, ll. 17-21.) Korpi states that “[t]he supervision is done by the secondary gatekeeper sending ‘keep alive’ messages between gatekeepers.” (Korpi, col. 2, ll. 21-23; see also Korpi, col. 5, ll. 55-57.) The sending of the keep alive messages by the secondary gatekeeper is apparently an ongoing process. According to Korpi, if the primary gatekeeper

fails, the secondary gatekeeper then initiates takeover of the call and sends affected clients a failure notification message. (Korpi, col. 2, ll. 27-33; col. 6, ll. 35-49.) The clients then re-establish the call signaling channel using the secondary gatekeeper. (Korpi, col. 2, ll. 29-40.) There is no disclosure in Korpi of sending a keep alive message to a second gatekeeper in response to a loss of a call signalling channel involving a first gatekeeper.

c) Independent Claim 1 and Dependent Claims 2-7 Are Not Anticipated By Korpi

The invention set forth in independent Claim 1 and dependent Claims 2-7 specifies that, in response to losing an established first call signaling channel, a keep alive message is sent to a second gatekeeper. The Korpi reference does not teach sending a keep alive message to a second gatekeeper in response to losing a first call signaling channel. Instead, Korpi describes sending a failure notification message from a secondary gatekeeper to clients after a primary gatekeeper fails. (Korpi, col. 2, ll. 27-32; col. 6, ll. 35-48.) In addition, the Korpi reference does not describe sending a keep alive message to a second gatekeeper. Instead, Korpi discusses a supervisory link between primary and secondary gatekeepers that accomplishes supervision “by the secondary gatekeeper sending ‘keep alive’ messages between gatekeepers.” (Korpi, col. 2, ll. 21-23.) Thus, Korpi does not describe sending a keep alive message to a secondary gatekeeper in response to losing an established first call signaling channel. Instead, Korpi discusses a system in which a secondary gatekeeper detects the failure of the primary gatekeeper from the absence of a response to a keep alive message sent by the secondary gatekeeper to the primary gatekeeper and in which the secondary gatekeeper sends a message to clients following a failure of the primary gatekeeper. (Korpi, col. 5, ll. 50-57; col. 6, ll. 35-42.) Therefore, the rejections of Claims 1-7 should be reversed for at least the reason that Korpi does not describe sending a keep alive message to a second gatekeeper in response to losing an established call signaling channel as claimed.

d) Independent Claim 8 and Dependent Claims 9-10 and 12-14 Are Not Anticipated By Korpi

The invention set forth in independent Claim 8 and dependent Claims 9-10 and 12-14 specifies that a second communication link between a first communication endpoint and a

second communication gatekeeper is established after a first communication link with a first gatekeeper is lost and after an exchange of a lightweight RRQ message and an RCF message between the first communication endpoint and the second gatekeeper. The Korpi reference does not describe a first communication endpoint and a second or alternate communication gatekeeper that establish a second communication link providing a call signaling channel after a first communication link is lost and after an exchange of a lightweight RRQ message and an RCF message as claimed. Instead, Korpi discusses sending keep alive messages between gatekeepers. (Korpi, col. 2, ll. 21-23; col. 5, ll. 55-58.) Therefore, independent Claim 8 and dependent Claims 9-10 and 12-14 should be allowed for at least the reasons that the Korpi reference does not disclose an exchange of a lightweight RRQ message and an RCF message between a first communication endpoint and a second communication gatekeeper after a loss of a first communication link between the first communication endpoint and a first gatekeeper as claimed.

2. THE REJECTIONS UNDER 35 U.S.C. §102 OF CLAIMS 21-23 AS BEING ANTICIPATED BY TON

a) The Claimed Invention

Independent Claim 21 is generally directed to a communication system endpoint. That endpoint includes means for generating a lightweight RRQ message in response to a loss of a communication link with a means for controlling aspects of an exchange of data (*i.e.*, a gatekeeper) between the communication system endpoint and a second communication system endpoint.

b) The Ton Reference

The Ton reference is generally directed to a method for ensuring reliable mobile IP service. More particularly, Ton allows mobile nodes to register with alternate agents when a primary agent is unavailable. In addition, Ton discusses a home agent (HA1) that sends an update message to a redundancy home agent (HA2) to indicate that the mobile node has registered. (Ton, col. 9, ll. 50-53.)

c) Independent Claim 21 and Dependent Claims 22-23 Are Not Anticipated By Ton

The invention set forth in independent Claim 21 and dependent Claims 22-23 includes a communication system endpoint with a means for generating a lightweight RRQ message in response to a loss of a communication link with a first means for controlling. The Ton reference does not describe a communication system endpoint that generates a lightweight RRQ message in response to a loss of a communication link. Indeed, the portion of Ton cited by the final Office Action with respect to this aspect of the claims simply states that the primary home agent sends a message to a redundancy home agent to indicate that a mobile node has registered. (Office Action dated June 25, 2008, p. 14, citing Ton, col. 9, ll. 50-51.) Therefore, Claims 21-23 are not anticipated, and the rejections of these claims should be reconsidered and withdrawn.

B. Rejections Under 35 U.S.C. §103 Of Claims 11, 15, 17, 18 and 20

Pending Claims 11, 15, 17, 18 and 20 have been finally rejected as being unpatentable over U.S. Patent No. 6,785,223 to Korpi et al. (“Korpi”) in view of U.S. Patent No. 6,771,623 to Ton (“Ton”) or U.S. Patent No. 6,904,277 to Tsutsumi et al. (“Tsutsumi”). 35 U.S.C. §103, provides in relevant part:

“A patent may not be obtained though the invention is not identically disclosed or described as set forth in §102 of this title, if the differences between the subject matter sought to be patented in the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.”

“A prima facie case of obviousness is established [by an Examiner] when the teachings from the prior art itself would appear to have suggested the claimed subjected matter to a person of ordinary skill in the art.” (*In re Rijckaert*, 28 USPQ2d (BNA) 1955, 1956 (quoting *In re Bell*, 26 USPQ2d (BNA) 1529, 1531 (Fed. Cir. 1993)). In determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the art having the reference before him to make the proposed substitution, combination or other

modification. (MPEP §2143.01, quoting *In re Linter*, 458 F. 2d 1013, 1016 (CCPA 1972)). “[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusions of obviousness.” *KSR International Co. v. Teleflex Inc.*, 550 U.S. _____, 82 USPQ2d 1385, 1396 (2007).

1. THE REJECTIONS UNDER 35 U.S.C. §103 OF CLAIMS 15, 17, 18 AND 20

a) The Claimed Invention

Independent Claim 15 is generally directed to a method according to which a first signaling link supporting a first bearer channel comprising a realtime communication is established between an endpoint and a first gateway. The claim specifies that, in response to a loss of the first signaling link, a lightweight registration request (RRQ) message is sent to a second gateway. In response to receiving a registration confirmation message from the second gateway, a second signaling link between the endpoint and the second gateway is established. The second signaling link then supports the first bearer channel comprising a realtime communication.

b) The Korpi Reference

As described above, the Korpi reference provides a system with a plurality of gatekeepers in which a secondary gatekeeper sends keep alive message between gatekeepers. (Korpi, col. 2, ll. 21-23; col. 5, ll. 55-57.) With respect to the rejections of Claims 15, 17, 18 and 20, the Office Action appears to rely on Korpi for disclosure of registering an endpoint with a first gateway and establishing a signaling link that supports a realtime communication.

The Ton reference is cited by the Office Action with respect to establishing a second signaling link between the endpoint and the second gateway to support the first bearer channel. As noted above, the Ton reference allows a mobile node to register with alternate agents. However, Ton does not describe sending a lightweight registration request message to a second gateway in response to a loss of a first signaling link.

c) Independent Claim 15 and Dependent Claims 17, 18 and 20 Are Not Obvious

The rejections of Claims 15, 17, 18 and 20 as obvious should be reversed for at least the reason that neither of the cited references discloses sending a lightweight registration request message to a second gateway in response to a loss of the first signaling link as recited by these claims. Moreover, it is noted that the detailed Action does not even assert that the Korpi or Ton reference discloses this element of Claim 15. In addition, these references in fact contain no teaching of such an element, whether those references are considered alone or in combination.

2. THE REJECTIONS UNDER 35 U.S.C. §103 OF CLAIM 11

a) The Claimed Invention

Claim 11 depends from Claim 8 and specifies that the telephony device recited by intermediate Claim 10 as comprising the first communication endpoint further comprises at least one of an IP telephone, a soft telephone, a video phone, and a soft video phone. Accordingly, Claim 11 specifies that such a telephony device exchanges a lightweight RRQ message and an RCF message with the second communication gatekeeper after a first communication link with a first gatekeeper is lost.

b) The Korpi and Tsutsumi References

As discussed above, the Korpi reference does not describe an exchange of a lightweight RRQ message and an RCF message between a communication endpoint and a second communication gatekeeper. Moreover, Korpi does not discuss the occurrence of such an exchange in response to the loss of a first communication. Instead, Korpi discusses sending keep alive messages between gatekeepers as part of a process that is apparently ongoing. (Korpi, col. 2, ll. 21-23; col. 5, ll. 55-57.) In addition, after a failure of a first gatekeeper, Korpi discusses sending a failure notification message to a client from the secondary gatekeeper. (Korpi, col. 6, ll. 35-49.)

The Tsutsumi reference is directed to a telephone system. The Appellant agrees that Tsutsumi's disclosure can be taken as evidence that the existence of IP telephones is known in the prior art. However, Tsutsumi does not teach, suggest or describe an IP telephone that participates in an exchange of a lightweight RRQ message and an RCF message with a second communication gatekeeper following the loss of a first communication link between that telephony device and a first gatekeeper.

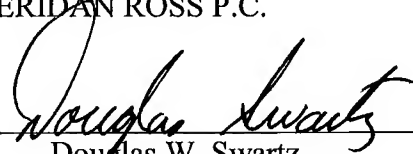
Accordingly, the rejection of Claim 11 as obvious should be reversed for at least the reason that the cited references do not teach, suggest or describe establishing a second communication link after the first communication link is lost and after an exchange of a lightweight RRQ and an RCF message between the first communication endpoint and the second communication gatekeeper as claimed.

Based upon the foregoing, Appellant respectfully requests that the Board reverse the Examiner's rejections of pending Claims 1-15, 17, 18 and 20-23 and requests that the board pass the above-identified patent application to issuance.

Respectfully submitted,

SHERIDAN ROSS P.C.

By:



Douglas W. Swartz
Registration No. 37,739
1560 Broadway, Suite 1200
Denver, Colorado 80202-5141
(303) 863-9700

Date:

August 28, 2008

VIII. CLAIMS APPENDIX

1. A method for re-establishing an IP protocol call signaling channel, comprising:
establishing a first call signaling channel between a first communication endpoint and a first gatekeeper, wherein said first call signaling channel provides a first set of call signaling feature with respect to a first bearer channel;

in response to losing said established first call signaling channel, sending a keep alive message to a second gatekeeper; and

in response to receiving a registration confirmation message from said second gatekeeper in reply to said keep alive message, establishing a second call signaling channel with said second gatekeeper, wherein said second call signaling channel provides said second set of signaling features with respect to said first bearer channel and effectively re-establishes said first call signaling channel.

2. The method of Claim 1, wherein said keep alive message comprises a lightweight registration request.

3. The method of Claim 1, wherein said step of sending a keep alive message to a second gatekeeper in response to losing said established first call signaling channel comprises sending a keep alive message to a plurality of alternate gatekeepers, and wherein said step of establishing a second call signaling channel comprises establishing a call signaling channel with a one of said alternate gatekeepers.

4. The method of Claim 1, further comprising:
in response to receiving no registration confirmation message from said second gatekeeper within a first time period, re-registering with a gatekeeper.

5. The method of Claim 1, further comprising establishing a bearer channel between said first communication endpoint and a second communication endpoint, wherein said call signaling channel carries data related to at least one of control of and features associated with data transferred between said first and second communication endpoints by said bearer channel.

6. The method of Claim 1, wherein said first communication endpoint comprises a telephony device.

7. The method of Claim 1, wherein said call signaling channel is established according to an ITU-T H.323 protocol.

8. A communication system, comprising:
a first communication endpoint, operable to at least one of receive data from and provide data to an Internet protocol network;
a first gatekeeper, operable to control aspects of operation of a communication endpoint in communication with said first gatekeeper;
a first communication link between said first communication endpoint and said first gatekeeper, wherein said first communication link provides a first call signaling channel in support of a first realtime communication;
a second gatekeeper, operable to control aspects of operation of a communication endpoint in communication with said second gatekeeper; and
a second communication link between said first communication endpoint and said second communication gatekeeper, wherein said second communication link is established after said first communication link is lost and after an exchange of a lightweight RRQ message and an RCF message between said first communication endpoint and said second communication gatekeeper, wherein said second communication link provides a second call signaling channel that replaces said first call signaling channel, wherein said first realtime communication formerly supported by said first call signaling channel is supported by said second call signaling channel after said first communication link is lost.

9. The system of Claim 8, further comprising:
a second communication endpoint; and
a third communication link, wherein said third communication link is established between said first and second communication endpoints.

10. The system of Claim 8, wherein said first communication endpoint comprises a telephony device.

11. The system of Claim 10, wherein said telephony device comprises at least one of an IP telephone, a soft telephone, a videophone, and a soft videophone.

12. The system of claim 8, wherein said first communication endpoint comprises a gateway.

13. The system of Claim 8, wherein said first communication endpoint comprises a first gateway and at least a first telephony device interconnected to said gateway.

14. The system of Claim 8, wherein said first communication endpoint comprises memory operable to store an address of said second communication gatekeeper.

15. A computer-readable medium encoded with a computer program for performing a method, the method comprising:

registering an endpoint with a first gateway, wherein a first signaling link that supports a first bearer channel comprising a realtime communication is established between said endpoint and said first gateway;

in response to a loss of said first signaling link, sending a lightweight registration request (RRQ) message to a second gateway; and

in response to receiving a registration confirmation message from said second gateway, establishing a second signaling link between said endpoint and said second gateway, wherein said second signaling link supports said first bearer channel comprising a realtime communication.

16. (Canceled)

17. The method of Claim 15, further comprising:

in response to receiving a registration rejection message, sending a lightweight RRQ message to a third gateway.

18. The method of Claim 15, further comprising:

sending a lightweight RRQ message to a third gateway.

19. (Canceled)

20. The method of Claim 15, wherein said computational component comprises a logic circuit.

21. A communication system endpoint, comprising:

means for communicating with a first means for controlling aspects of an exchange of data between said communication system endpoint and a second communication system endpoint, wherein a first call signaling channel in support of a first realtime communication over a first bearer channel is established;

means for generating a lightweight RRQ message in response to a loss of a communication link between said means for communicating and said first means for controlling aspects of an exchange of data between said communication system endpoint; and

means for interconnecting said at least a first communication endpoint means and said first means for controlling aspects of an exchange of data between said communication system endpoint.

22. The communication system endpoint of Claim 21, further comprising:

means for storing a list of alternate means for controlling aspects of an exchange of data between said communication system endpoint and a second communication system endpoint, wherein said means for generating a lightweight RRQ message addresses said lightweight RRQ message to a start of said alternate means for controlling, wherein a second call signaling channel in support of said first realtime communication over a first bearer channel is established.

23. The communication system of Claim 21, further comprising:

means for storing a list of alternate means for controlling aspects of an exchange of data between said communication system endpoint and a second communication system endpoint, wherein said means for generating a lightweight RRQ message addresses a lightweight RRQ message to a plurality of said alternate means for controlling.

IX. EVIDENCE APPENDIX

None.

X. RELATED PROCEEDINGS APPENDIX

None.